Schema Inspector Utility User's Guide

Contents

Before You Begin

The *JADE Schema Inspector Utility User's Guide* is intended as the main source of information when you inspect JADE database objects in production systems.

Who Should Read this Guide

The main audience of the *JADE Schema Inspector Utility User's Guide* is expected to be system administrators.

Related Documentation

Other documents that are referred to in this guide, or that may be helpful, are listed in the following table, with an indication of the JADE operation or tasks to which they relate.

Title	Related to…
JADE Database Administration Guide	Administering a JADE database
JADE Development Environment Administration Guide	Administering the JADE development environment
JADE Development Environment User's Guide	Using the JADE development environment to development JADE applications
JADE Initialization File Reference	Maintaining JADE initialization file parameter values
JADE Installation and Configuration Guide	Installing and configuring JADE
JADE Report Writer User's Guide	Using the JADE Report Writer to develop and run reports
JADE Runtime Application Guide	Administering JADE deployed runtime applications
JADE Web Application Guide	Implementing, monitoring, and configuring Web applications

Conventions

The *JADE Schema Inspector Utility User's Guide* uses consistent typographic conventions throughout.

Convention	Description
Arrow bullet (**»**)	Step-by-step procedures. You can complete procedural instructions by using either the mouse or the keyboard.
Bold	Items that must be typed exactly as shown. For example, if instructed to type **foreach**, type all the bold characters exactly as they are printed.
	File, class, primitive type, method, and property names, menu commands, and dialog controls are also shown in bold type, as well as literal values stored, tested for, and sent by JADE instructions.

Convention	Description
Italic	Parameter values or placeholders for information that must be provided; for example, if instructed to enter *class-name*, type the actual name of the class instead of the word or words shown in italic type.
	Italic type also signals a new term. An explanation accompanies the italicized type.
	Document titles and status and error messages are also shown in italic type.
Blue text	Enables you to click anywhere on the cross-reference text (the cursor symbol changes from an open hand to a hand with the index finger extended) to take you straight to that topic. For example, click on the "Using the Schema Inspector Form" cross-reference to display that topic.
Bracket symbols ([ ])	Indicate optional items.
Vertical bar (	)	Separates alternative items.
`Monospaced font`	Syntax, code examples, and error and status message text.
ALL CAPITALS	Directory names, commands, and acronyms.
Small font	Keyboard shortcut keys.

Key combinations and key sequences appear as follows.

Convention	Description
Key1+Key2	Press and hold down the first key and then press the second key. For example, "press Shift+F2" means to press and hold down the Shift key and press the F2 key. Then release both keys.
Key1,Key2	Press and release the first key, then press and release the second key. For example, "press Alt+F,X" means to hold down the Alt key, press the F key, and then release both keys before pressing and releasing the X key.

Chapter 1   Inspecting a Deployed Database

This document covers the following topics.

- Overview
- Using the Schema Inspector Dialog
- Using the Schema Inspector Form

Overview

The Schema Inspector is supplied with JADE, to enable you to inspect database objects in your production JADE systems.

The **Schema Inspector** icon is installed in your JADE program folder when you install JADE.

A security filter method enables you to define security to specify users who can inspect class instances in a deployed (run time) database. For details, see "Deployed JADE Database Inspection Security", in Chapter 3 of the *JADE Object Manager Guide*.

Note   At run time, instances cannot be inspected if either of (or both) the **_jadeapp** and **_jadedef** database files has been marked offline and the security filter method has not been reimplemented or it does not return **true**. This ensures that any user of the Schema Inspector in a deployed application can inspect only those classes to which access has been specifically permitted by the application software developer.

The following is an example of the command line required to run the Schema Inspector.

```
jade.exe path=s:\jade\system ini=c:\jade\system\jade.ini schema=JadeMonitorSchema
app=JadeSchemaInspector
```

»   **To execute the deployed Schema Inspector**

1. Click the **Schema Inspector** icon in the JADE program folder, to run the standalone Schema Inspector application.

   The Schema Inspector sign-on form is then displayed. The user id of your workstation is displayed in the **User Id** text box, by default.

   As your password is hidden for security reasons, each character is represented by an asterisk (*) character.

   The user id and password are case-sensitive.

2. Specify your user id and optionally your password in the appropriate text boxes, and then click the **OK** button to sign on to the Schema Inspector.

The Schema Inspector dialog, shown in the following image, is then displayed.
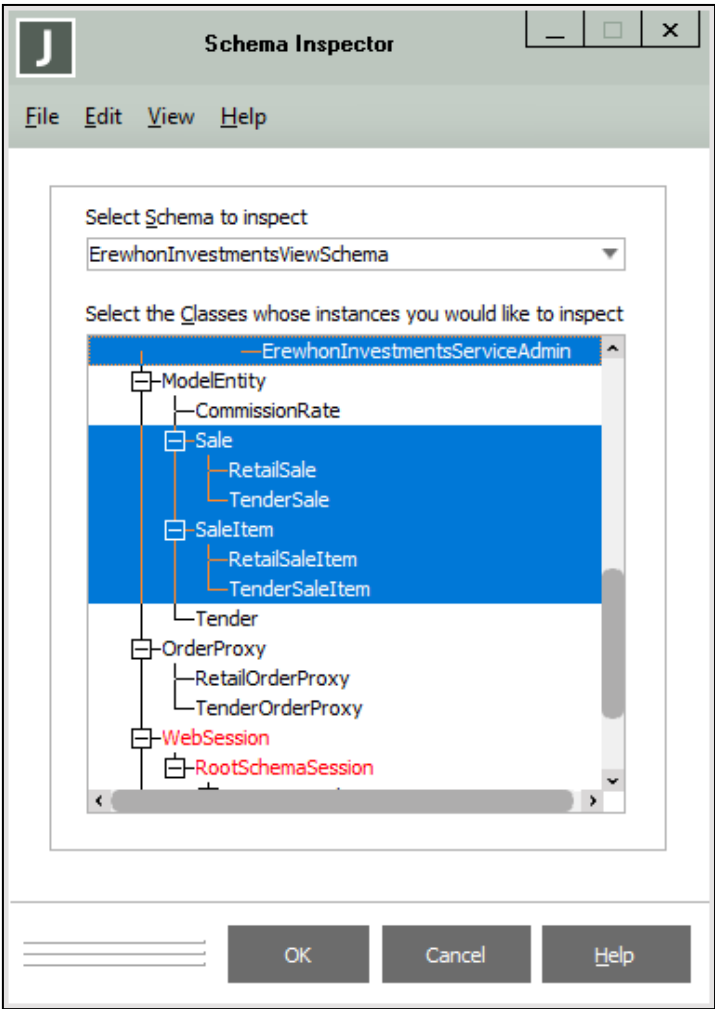
3.   In the **Select Schema to inspect** combo box, select the schema whose instances you want to inspect. The classes list box is then populated with all classes in the selected schema.

4.   In this list box, select the classes whose instances you want to inspect.

> **Tip**   As the classes list box is a multiple-selection list box, you can use the Shift or Ctrl key to select a group or range of classes.

5.   When you have selected the required classes, click the **OK** button. Alternatively, double-click an entry to view instances of that class. If security is not set, the Schema Inspector is then displayed. Alternatively, click the **Cancel** button to abandon your selections.

6.   If security is set for a selected class and you do not have sufficient security, a message box is displayed, informing you that you do not have sufficient security to inspect instances of the specified class.

Perform one of the following actions.

☐   Select another class to which you may have inspection access rights.

☐   Select the **Logoff** command from the File menu to display the Schema Inspector sign-on form and specify a user id and password that permit access to the classes whose instances you want to inspect.

☐   Select the **Exit** command from the File menu, to close the Schema Inspector.

When any security filter requirements have been satisfied, the Schema Inspector form is then displayed. For details about inspecting class instances, see "Using the Schema Inspector Form", later in this document.

Using the Schema Inspector Dialog

The Schema Inspector dialog menu bar contains the following menus.

- File

- Edit

- View

- Help

Using the File Menu

Use the File menu in the Schema Inspector dialog to:

- Exit from the inspector. (You can also exit from the Schema Inspector dialog by clicking the close icon at the top right corner of the window or by selecting the **Close** command from the Control-Menu.)

- Log off from the Schema Inspector when access to class instances is restricted and you want to specify another user id and optionally the password.

»   To exit from the Schema Inspector dialog

- Select the **Exit** command on the File menu. Alternatively, click the **Cancel** button.

The Schema Inspector dialog is then closed.

»   To log off from the Schema Inspector dialog

- Select the **Logoff** command on the File menu.

The Schema Inspector sign-on form is then displayed, to enable you to change the user id and optionally the password if access to instances of a class is restricted.

Using the Edit Menu

»   To locate a class in the schema hierarchy

1.   Perform one of the following actions.

☐   Select the **Find** command from the Edit menu.

☐   Press F4.

The Find dialog is then displayed.

2.   In the **Class to search for:** combo box, select the class that you want to locate for subsequent inspection.

3.   Click the **OK** button. Alternatively, click the **Cancel** button.

Your selected class is then highlighted in the class hierarchy list box of the Schema Inspector dialog.

Using the View Menu

Although a schema inherits all classes and their associated properties, methods, and constants from its superschemas, these inherited classes are not displayed by default in the Schema Inspector dialog of the subschema. Instead, for the sake of clarity, only classes local to the schema are displayed, as well as any superschema classes to which subclasses, methods, or constants have been added.

》   **To display superschema classes in the schema hierarchy**

1.   Select the **Superschemas** command from the View menu.

The View Superschemas dialog is then displayed. The current schema is displayed in the **Show classes and methods defined in:** combo box, by default.

2.   Select the superschema whose classes you want to display in your Schema Inspector.

3.   When you have selected the appropriate superschema, click the **OK** button.

The classes list box of the Schema Inspector dialog is then populated with all of the classes in the specified superschema. (Classes defined in a superschema are displayed in red and those defined in the current schema are displayed in black.)

Using the Help Menu

Use the commands in the Schema Inspector dialog Help menu to access the standard Common User Access (CUA) help options. These commands are described in the following subsections.

Index Command

Use the Schema Inspector dialog Help menu **Index** command to open the Schema Inspector online help. The *JADE Schema Inspector Utility User's Guide* is then opened, providing access to the topics available in online help.

》   **To access the online help, perform one of the following actions**

■   Select the **Index** command from the Help menu

■   Press F1

The JADE online help is then displayed; for example, the **SchemaInspector.pdf**) document is displayed in Adobe Reader.

Use the functions available in JADE online help to find the required topics. For details, see "JADE HTML5 Online Help" or "JADE Product Information Library in Portable Document Format", in Chapter 2 of the *JADE Development Environment User's Guide*.

About Command

Use the Schema Inspector dialog Help menu **About** command to access information about the Schema Inspector.

» **To access the Schema Inspector information**

- Select the **About** command from the Help menu.

The About box is then displayed, providing information about the JADE release, copyright and licence information, database path, operating system of the workstation, and the file version (that is, ANSI or Unicode). This dialog is for display purposes only.

Using the Schema Inspector Form

The Schema Collection Inspector form, shown in the following image, is displayed when you have selected a class or classes from the deployment Schema Inspector dialog with the appropriate security.
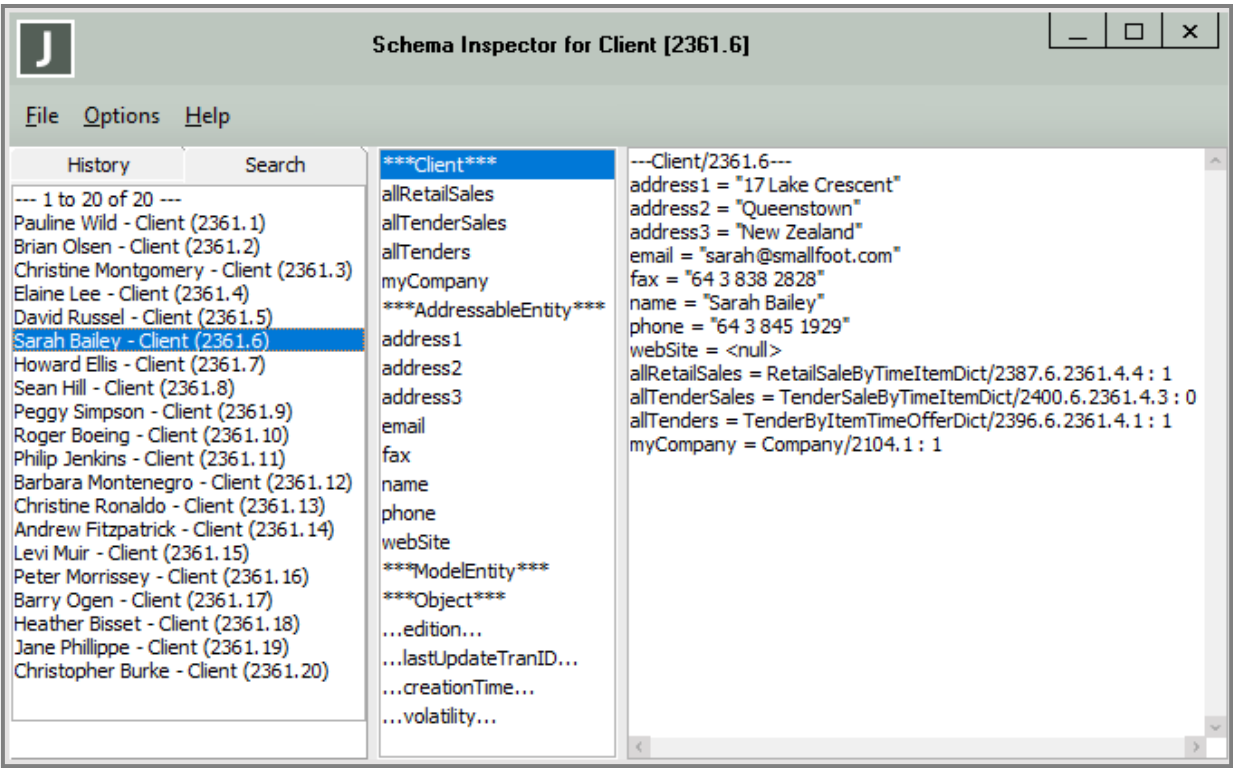
The Schema Inspector title bar specifies the number of instances of the selected class.

The list box in the middle pane contains an entry for each instance of the selected class or classes. In addition, if the class is a collection class, a list box at the upper center displays the properties of the collection. Clicking on a:

- Property name displays the property value.

- Collection entry displays the collection entry details.

If the collection class has any properties, both list boxes are automatically made visible. If the collection class does not have any properties, only the collection entries list box display is initially made visible.

When both the collection properties and collection entries list boxes are visible, a resize bar is displayed between them. To change the size of each of the list boxes, drag this resize bar vertically.

Note   When a collection is displayed on the left of the JADE Inspector form, clicking on another collection entry preserves the vertical scroll position of the text box that displays the property values on the right, if that position exists.

» **To toggle the display of collection instance properties**

  ■   Select the **Show Collection Properties** command in the Options menu.

      This command is not visible if the collection is an internal JADE collection (for example, one that used to display all instances of a class).

» **To examine each object**

  ■   Select an object in the left-hand (object) list.

» **To inspect a specific object (drill-down)**

  ■   Double-click on an object in the Object List in the middle pane of the Schema Inspector form.

The specified object and any properties defined for that object are then displayed in a new Schema Collection Inspector form.

Clicking the **Use Same Window** command in the Options menu toggles whether the menu item is checked (that is, whether the same form is used). Toggling the value of this command writes the **true** or **false** value to the **UseSameWindow** parameter in the [JadeInspector] section of the JADE initialization file.

When the **Use Same Window** command is checked, each double-click of an object in an Inspector form re-uses the same form to display the selected object, replacing the previously displayed object. A pane at the left of the form contains a hierarchical list box displaying all of the objects that have previously been inspected. The hierarchy indicates the history of how the objects were inspected. The entries display the value of the **name** property if it exists in the object, followed by the class name and the JADE object identifier (oid). Clicking on an entry in the hierarchical history list displays the selected object again.

The Schema Collection Inspector form displays the type, name, and dynamic attribute names and values of **JadeDynamicObject** instances. If a dynamic property is a reference, double-clicking the property name opens an inspector for that reference. In addition, dynamic property names are displayed in dark blue text.

» **To view the values for the current property in the object**

  ■   Click the required property.

The values for the selected property are then displayed in the pane at the left of the form when the same form is re-used, as shown in the following image.
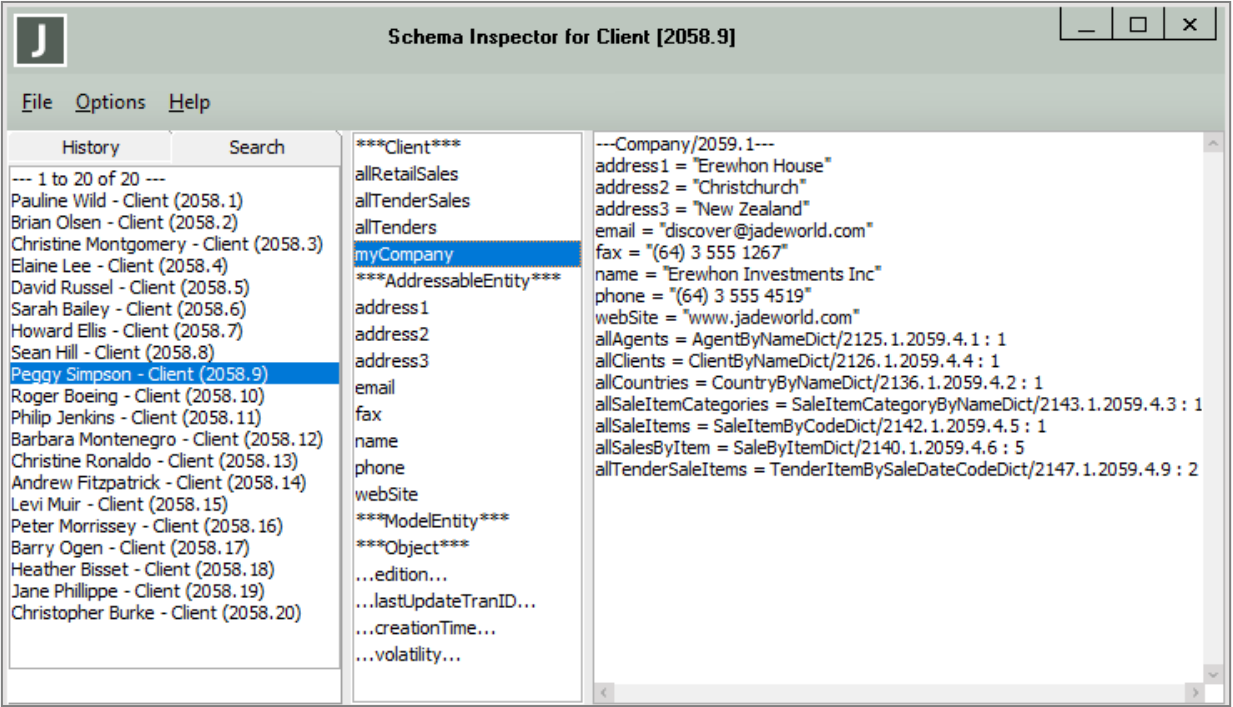
Notes   If the current property is a reference or a collection and the same form is *not* being re-used, you can double-click on it to open a new Inspector form for that property. This enables you to "drill-down" through your references and collections.

The History menu is displayed only when two or more objects are displayed in the hierarchy list box on the **History** sheet.

To inspect an object, click on an object listed in the lower part of the Object List in the center pane, to display details of that object in the pane at the right of the form.

You can inspect the edition, volatility, and time an object was updated or created, by clicking **edition**, **volatility**, **lastUpdateTranId**, or **creationTime**, displayed beneath *****Object***** in the Object List in the center pane, to display that value in the pane on the right of the Inspector Form.

The Schema Inspector form menu bar contains the following menus.

- File

- Options

- History

- Help

Using the File Menu

Use the File menu in the Schema Inspector form to exit from the deployment inspector. (You can also exit from the Inspector form by clicking the close icon at the top right corner of the form or by selecting the **Exit** command from the Control-Menu.)

》 To close all open non-modal Inspector forms

- Select the **Close All** command on the File menu.

  > **Note**   This command is displayed only when the Schema Inspector form was not shown modally.

All open Schema Inspector forms are then closed.

》 To open a new Inspector form for the currently displayed object

- Select the **New Window** command on the File menu.

A new Inspector form for the currently displayed object is then displayed (regardless of the setting of the **Use Same Window** command). This enables you to display an object in a separate Schema Inspector form that can be retained regardless of the objects that are inspected in the original form or forms.

》 To exit from the Inspector forms

- Select the **Exit** command on the File menu.

The Schema Inspector form is then closed.

Using the Options Menu

> **Note**   If more than one user uses the same JADE initialization file on the client, they will share the same values for parameters in the [JadeInspector] section.

》 To replace the saved position and size with the default position and size

- Select the **Clear Saved Position/Size** command from the Options menu if you want to use the default position and size for Inspector forms.

When the next Inspector form is opened, the default position and size will be used.

》 To save the current position and size of the form

- Select the **Save Position/Size** command from the Options menu if you want to save the current position and size of the form.

This information, which is used to position and size any subsequent Inspector forms that are displayed, is stored in the **WindowPos** parameter in the [JadeInspector] section of the JADE initialization file.

》 To re-use the same form to display the selected object (applies to version 2016.0.01 and higher)

- Select the **Use Same Window** command from the Options menu.

By default, the same Inspector form is not used (that is, this command in unchecked, or unselected), so that each double-click of an object in an Inspector form opens a new Inspector form.

When the **Use Same Window** command is checked, each double-click of an object in an Inspector form re-uses the same form to display the selected object, replacing the previously displayed object. A pane at the left of the form contains a hierarchical list box displaying all of the objects that have previously been inspected. The hierarchy indicates the history of how the objects were inspected. The entries display the value of the **name** property if it exists in the object, followed by the class name and the JADE object identifier (oid). Clicking on an entry in the hierarchical history list at the right of the form displays the selected object again.

The value of this setting (that is, **true** or **false**) is information is stored in the **UseSameWindow** parameter in the [JadeInspector] section of the JADE initialization file.

» To specify the font used to display text in the Inspector form

- Select the **Font** command from the Options menu if you want to change the default font from Tahoma, regular, 8.25 points.

The common Font dialog is then displayed, to enable you to make your font selections. When you have selected your required font options, focus is then returned to the Inspector form.

» To toggle the display of the collection properties list box

- Select the **Show Collection Properties** command from the Options menu.

The collection properties list box is then displayed or removed from the form and the check mark on the menu item displayed or removed.
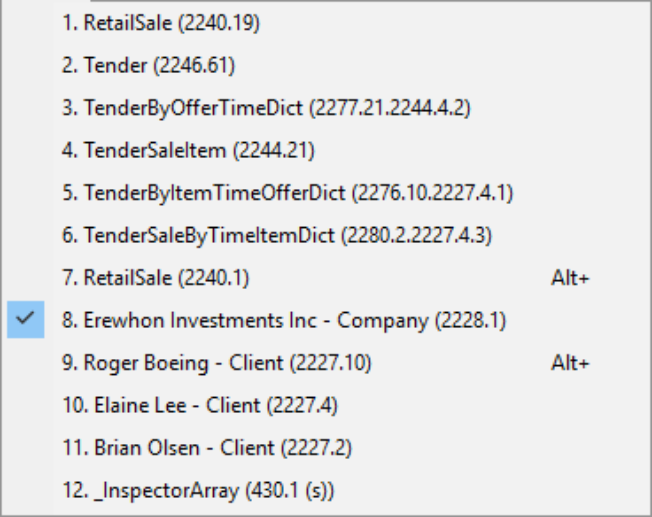
Using the History Menu

The History menu displays up to the last 25 objects inspected in the Schema Inspector form, in the reverse order that they were double-clicked.

» To redisplay an object instance

- Click an entry in the history list.

The History menu displays a check mark at the left of the object currently displayed in the Schema Inspector form (if it is in the menu item list).

```
1. RetailSale (2240.19)
2. Tender (2246.61)
3. TenderByOfferTimeDict (2277.21.2244.4.2)
4. TenderSaleItem (2244.21)
5. TenderByItemTimeOfferDict (2276.10.2227.4.1)
6. TenderSaleByTimeItemDict (2280.2.2227.4.3)
7. RetailSale (2240.1)                              Alt+
✓ 8. Erewhon Investments Inc - Company (2228.1)
9. Roger Boeing - Client (2227.10)                  Alt+
10. Elaine Lee - Client (2227.4)
11. Brian Olsen - Client (2227.2)
12. _InspectorArray (430.1 (s))
```

Press the Alt+↑ (up arrow) or Alt+↓ (down arrow) accelerator keys to step to the previous or next entry in the history list, respectively, in the order in which they were originally displayed.

Note   The History menu list is not affected by clicking an item in the history list or by clicking an item in the hierarchy history list box at the left of the form.

The History menu is displayed only when two or more objects are displayed in the hierarchy list box on the**History**sheet.

Applies to Version: 2016.0.01 and higher

Using the Help Menu

Use the commands in the Schema Inspector form Help menu to access the standard Common User Access (CUA) help options. These commands are listed in the following subsections.

Command	Description
Index	Opens the Schema Inspector online help, with all topics available in the online help file displayed down the left side of the help window in Adobe Reader.
About	Accesses information about the release of the JADE Schema Inspector. (For details, see "About Command" under "Help", earlier in this document.)

For details about using JADE online help, see "JADE HTML5 Online Help" or "JADE Product Information Library in Portable Document Format", in Chapter 2 of the *JADE Development Environment User's Guide*.